

Amendments to the Specification:

Please amend the following:

On a paragraph starting at line 6, page 5:

Now referring to FIGURE 2, a block diagram further illustrates some more detailed units in a preferred embodiment of the image processing apparatus according to the current invention. An image scanning unit 11 optically scans an image intensity level by reading light reflected off from an original image. The image scanning unit 11 further includes image pixel elements such as CCDs to convert the scanned light into electrical signals and converts the analog electrical signal to digital signals. After the signals are converted to electrical signals, a shade correction unit 21 performs a correction process on the digital data to correct non-uniformity in intensity due to a light source and or an optical system. Prior to scanning an image document, a white board of a predetermined intensity standard has been scanned, and the corresponding scanned data has been stored in memory. For each scanned position in a running direction, the scanned data is corrected based upon the above standard data.

On a paragraph starting at line 18, page 5:

Still referring to FIGURE 2, after the above shading correction, the digital signal has become linear with respect to the reflection rate. An input intensity correction unit or scanner γ correction unit 22 process the digital signal to make it also linear with respect to the original intensity level in the document. The scanner characteristic is previously measured, and an inverse conversion table is generated for compensating for the measured characteristics to correct the scanned image data. The inverse conversion table is read into RAM from a storage unit prior to use. The input intensity correction unit or scanner γ correction unit 22 makes the digital data linear with respect to the intensity level based upon the inverse conversion table. The above conversion not only increases low intensity areas, but also decreases high intensity areas in order to maximize the correction effects. A running direction electrical conversion unit 23 enlarges or reduces an image based upon

one line of data as a unit that is read by the CCD. By using a convolution method, the size change process is performed while the MTF of the optical component of the scanning unit is kept. The resolution of the image data is maintained. In a sub-running direction, the size change is performed by a mechanical control. A space filter process unit 24 extracts characteristic values and preprocesses for the subsequent gradation process. In general, the space filter process unit 24 includes the following major functions such as MTF correction, a smoothing process 24a and edge detection 24c and setting a threshold values for intensity changes 24b. The output from the space filter process unit 24 includes the filtered image data and the edge information for outline or contour portions of the image. As necessary, an intensity correction unit 25 corrects the intensity level of the image data based upon the above edge information. The intensity correction unit 25 generally corrects the intensity in the scanned intensity for regenerating the image based upon the standard intensity. As described above, the intensity correction unit 25 utilizes a previously stored conversion data from RAM. For an outline intensity correction unit 25a and a non-outline intensity correction unit 25b, a desired set of conversion data is separately downloaded from the RAM.